



# KLEKs API Reference Manual

**Draft – subject to change!**

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**ATTENTION:**

*By using the KLEKs API, you agree to the KLEKs terms of use located at <http://www.kleks-online.de/Nutzungsbedingungen.pdf>. If you disagree with any of these terms, you are not allowed to use the KLEKs API!*

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## A Methodology

<b>Description</b>	Retrieve supported language codes, typology, chronology and aspect schemes
<b>URL</b>	<a href="http://api.kleks-online.de/methodology">http://api.kleks-online.de/methodology</a>
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
COMPRESSION	optional	"deflate"
ITEMS	optional	comma separated list of items to retrieve, possible items: languages, typology, symbology (typology without descriptions, subtypes, and formtypes), aspects
LANGUAGE	optional	only retrieve items corresponding to given language code, e. g. "de"

XML response scheme:

```

<methodology>
  <languages>
    <language>
      <code>de</code>
      <caption>Deutsch</caption>
    </language>
    <language>
      <code>pl</code>
      <caption>Polski</caption>
    </language>
    ...
  </languages>
  <types>
    <type>
      <code>HAS</code>
      <color>0 0 0</color>
      <description language='de'>
        <name>Wohngebäude</name>
        <remark></remark>
        <explanation></explanation>
        <synonyms>Gebäude;Haus</synonyms>
      </description>
      <description language='en'>
        ...
      <subtypes language='de'>
        <subtype>
          <name>Pfarrhaus</name>

```

```
</subtype>
<subtype>
...
<formtypes language='de'>
  <formtype>
    <name>Abseitenquerhaus</name>
  </formtype>
  <subtype>
    ...
  </type>
</types>
<aspects>
...
</aspects>
</methodology>
```

**Remarks:**

- if COMPRESSION is set, a leading marker "XML" is attached to response

## B Landscape elements

### 1 Element records

#### 1.1 Retrieve

<b>Description</b>	Retrieve one or more landscape elements
<b>URL</b>	<a href="http://api.kleks-online.de/elements-get">http://api.kleks-online.de/elements-get</a> or <a href="https://api.kleks-online.de/elements-get">https://api.kleks-online.de/elements-get</a>
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
SRS	optional	spatial reference system, default is "epsg:4326"
COMPRESSION	optional	"deflate"
IDs	optional	comma separated list of landscape element ids (optionally including id extension "no" separated by minus), e.g. "2445/101,2445/250", e.g. "2445/101-1,2445/250-0"
ID	optional	alias of parameter "IDs"
DATE	optional	only retrieve elements with given "serverdate" timestamp
WITH_KILLED	optional	[0 1] 0: retrieve existing elements only (default) 1: retrieve deleted elements too
WITH_ARCHIVED	optional	[0 1] 0: retrieve actual elements only (default) 1: retrieve all elements abstracts too
LANGUAGE	optional	only retrieve aspects of given language code, e. g. "de"
STATE	optional	[""] stable unstable "": parameter unset (default) stable: retrieve last stable aspect block for each language unstable: retrieve unstable aspect blocks only NOTE: If STATE is set, WITH_ARCHIVED must not be set!

USER (https only)	optional	user token
PW (https only)	optional	user password

XML response scheme:

```

<elements>
  <element id="2445/101" no="0" date="2005-01-01 14:05:34" killed="0"
state="stable">
  <geometry srs="epsg:4326">POINT(13.5544 53.0232)</geometry>
  <type>WAS</type>
  <genesis>1200</genesis>
  <breakup>1500</breakup>
  <condition>2</condition>
  <interest>7</interest>
  <value>1</value>
  <valuation>[used for calculation of "value" – special format]</valuation>
  <exposure>2</exposure>
  <maintenance>3</maintenance>
  <idlepotential>1</idlepotential>
  <discussion></discussion>
  <user>Stöckmann</user>
  <editing>2007-09-30, Maik Stöckmann</editing>
  <aspects>
    <block language="de" state="stable">
      <aspect>
        <n>name</n>
        <v>Rathaus Musterstadt</v>
        <n>text</n>
        <v>mit Giebelreliefs</v>
        <n>subtype</n>
        <v>Rathaus</v>
        <n>formtype</n>
        <v>Hallenbau</v>

        <n>Gemarkung</n>
        <v>Klein Vielen</v>
        ...
      </aspect>
    </block>
    <block language="pl">
      ...
    </block>
  </aspects>
</element>
<element
...
</elements>

```

Remarks:

- attribute "killed" is only included when parameter WITH\_KILLED is set to "1"
- elements are sorted ascending by date
- archived element versions are sorted descending by date (if WITH\_ARCHIVED=1)
- if COMPRESSION is set, a leading marker "XML" is attached to response

- use USER/PW parameters under HTTPS to retrieve hidden elements too
- the “asterix” aspect block contains language-independent information

Possible values for “condition”:

(2) well preserved, (3) heavily modified/superstructed, (4) partially preserved/ruin, (5) secondary/terrain relict, (6) destroyed above ground, (7) not preserved, (8) can't be classified, (9) unknown

Possible values for “interest”:

(0) unknown, (1) don't publish, (2) not visible, (3) visible, (5) relevant to tourism, (6) tagged, (7) information board, (9) touristic highlight

Possible values for “value”:

[Empty], (0) valueless, (1) valuable, (2) high valuable, (3) most valuable

Possible values for “exposure”:

[Empty], (0) no exposure, (1) low, (2) medium, (3) high

Possible values for “maintenance”:

[Empty], (0) no maintenance, (1) low, (2) medium, (3) high

Possible values for “idlepotential”:

[Empty], (1) yes

Possible values for block attribute “state”:

“stable”, “draft”

## 1.2 List

<b>Description</b>	Get a list of landscape elements (used for database replication)
<b>URL</b>	<a href="http://api.kleks-online.de/elements-list">http://api.kleks-online.de/elements-list</a>
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	ascii string

Parameter	Status	Possible values
COMPRESSION	optional	“deflate“
MODIFIED_SINCE	optional	MySQL timestamp (format “yyyy-mm-dd hh:mm:ss“)
LAT_MIN, LAT_MAX, LON_MIN, LON_MAX	optional	spatial filter: only list abstracs belonging to landscape elements that are located in or intersect the given bounding box (WGS84 latitute/longitude)

Response scheme:

[keyword],[MySQL timestamp of this query],[item count][line feed][id]-[no],[id]-[no],...

e.g.:

ELEMENTS,2008-09-08 09:01:30,2  
2445/101-1,2445/250-0

Remarks:

- the list is sorted ascending by date
- only the item list (after line feed) is compressed (if COMPRESSION is set)

### 1.3 Put/delete

<b>Description</b>	Upload new or modified landscape element or delete a landscape element
<b>URL</b>	<a href="https://api.kleks-online.de/element-put">https://api.kleks-online.de/element-put</a>
<b>Parameters</b>	HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
USER	required	user token
PW	required	user password
XML	required	XML (UTF-8 encoded)
MODE	optional	[overwrite merge] overwrite: replace existing record (default) merge: overwrite only transmitted XML tags

XML parameter scheme for uploading:

```
<element id="2445/101" no="0" state="stable" serverdate="[MySQL timestamp of last
known server record version]">
  <geometry srs="epsg:4326">POINT(13.5544 53.0232)</geometry>
  <type>WAS</type>
  <genesis>1200</genesis>
  <breakup>1500</breakup>
  <condition>2</condition>
  <interest>7</interest>
  <value>1</value>
  <valuation>[used for calculation of "value" – special format]</valuation>
  <exposure>2</exposure>
  <maintenance>3</maintenance>
  <idlepotential>1< idlepotential>
  <discussion></discussion>
  <aspects>
    <block language="de" state="stable">
      <aspect>
        <n>Gemarkung</n>
        <v>Klein Vielen</v>
        ...
      </aspect>
    </block>
  </aspects>
</element>
```

```

    <block language="pl">
      ...
    </block>
  </aspects>
</element>
<element

```

XML parameter scheme for deleting:

```

<element id="2445/101" no="0" serverdate="[MySQL timestamp of last known server
record version]" killed="1"/>

```

XML response scheme on success:

```

<response>
  <newid>2445/555</newid>
  <date>[MySQL timestamp]</date>
  <editing>[internal list of edits]</editing>
  <conflict>[MySQL timestamp of overwritten record],[user token]</conflict>
</response>

```

XML response scheme on failure:

```

<response>
  <error>[error message]</error>
</response>

```

Remarks:

- attributes "id" and "serverdate" must be empty for a new element
- attribute state="stable" can only be set by administrators
- tag „newid“ on response is included only if necessary
- tag „editing“ on response is not included only for MODE=merge
- tag „conflict“ on response is empty when no conflict was detected

## 2 Abstracts

### 2.1 Retrieve

<b>Description</b>	Retrieve abstracts of one or more landscape elements
<b>URL</b>	http://api.kleks-online.de/abstracts-get
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
COMPRESSION	optional	“deflate“
IDs	optional	comma separated list of landscape element ids (optionally including language code separated by minus), e.g. “2445/101,2445/250”, e.g. “2445/101-de,2445/250-de”
ID	optional	alias of parameter “IDs”
STATE	optional	[“” stable unstable] “”: parameter unset (default) stable: retrieve stable abstracts only unstable: retrieve unstable abstracts only
WITH_KILLED	optional	[0 1] 0: retrieve existing abstracts only (default) 1: retrieve deleted abstracts too
WITH_ARCHIVED	optional	[0 1] 0: retrieve actual abstracts only (default) 1: retrieve all archived abstracts too

XML response scheme:

```
<abstracts>
  <abstract id="2445/101" language="de" native="1" state="stable" date="2005-01-01
14:05:34" killed="0">
    <title>Hinterste Mühle</title>
    <body>Die Wassermühle stammt aus dem 13. Jahrhundert.</body>
    <author>Maik Stöckmann</author>
    <user>Stöckmann</user>
  </abstract>
  <abstract
  ...
</abstracts>
```

Remarks:

- attribute “killed” is only included when parameter WITH\_KILLED is set to “1”
- abstracts are sorted ascending by date

- archived abstract versions are sorted descending by date (if WITH\_ARCHIVED=1)
- if COMPRESSION is set, a leading marker "XML" is attached to response

## 2.2 List

<b>Description</b>	Get a list of abstracts (used for database replication)
<b>URL</b>	<a href="http://api.kleks-online.de/abstracts-list">http://api.kleks-online.de/abstracts-list</a>
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	ascii string

Parameter	Status	Possible values
COMPRESSION	optional	"deflate"
MODIFIED_SINCE	optional	MySQL timestamp (format "yyyy-mm-dd hh:mm:ss")
LAT_MIN, LAT_MAX, LON_MIN, LON_MAX	optional	spatial filter: only list abstracts belonging to landscape elements that are located in or intersect the given bounding box (WGS84 latitude/longitude)

Response scheme:

[keyword],[MySQL timestamp of this query],[item count][line feed][id]-[language code],[id]-[language code],...

e.g.:

ABSTRACTS,2008-09-08 09:01:30,2  
2445/101-de,2445/250-de

Remarks:

- the list is sorted ascending by modification date of the items
- only the item list (after line feed) is compressed (if COMPRESSION is set)

## 2.3 Put/Delete

<b>Description</b>	Upload new or modified abstract or delete an abstract
<b>URL</b>	<a href="https://api.kleks-online.de/abstract-put">https://api.kleks-online.de/abstract-put</a>
<b>Parameters</b>	HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
USER	required	user token
PW	required	user password

XML	required	XML (UTF-8 encoded)
-----	----------	---------------------

XML parameter scheme for uploading:

```
<abstract id="2445/101" language="de" native="1" state="stable"
serverdate="[MySQL timestamp of last known server record version]">
  <title>Hinterste Mühle</title>
  <body>Die Wassermühle stammt aus dem 13. Jahrhundert.</body>
  <author>Maik Stöckmann</author>
</abstract>
```

XML parameter scheme for deleting:

```
<abstract id="2445/101" language="de" serverdate="[MySQL timestamp of last
known server record version]" killed="1"/>
```

XML response scheme on success:

```
<response>
  <date>[MySQL timestamp]</date>
  <conflict>[MySQL timestamp of overwritten record],[user token]</conflict>
</response>
```

XML response scheme on failure:

```
<response>
  <error>[error message]</error>
</response>
```

Remarks:

- attribute "serverdate" must be empty for a new abstract
- tag „conflict“ on response is empty when no conflict was detected

## 3 Proses

### 3.1 Retrieve

<b>Description</b>	Retrieve proses of one or more landscape elements
<b>URL</b>	http://api.kleks-online.de/proses-get
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
COMPRESSION	optional	"deflate"
IDs	optional	comma separated list of landscape element ids

		(optionally including language code separated by minus), e.g. "2445/101,2445/250", e.g. "2445/101-de,2445/250-de"
ID	optional	alias of parameter "IDs"
STATE	optional	[""] stable unstable "": parameter unset (default) stable: retrieve stable proses only unstable: retrieve unstable proses only
WITH_KILLED	optional	[0 1] 0: retrieve existing proses only (default) 1: retrieve deleted proses too
WITH_ARCHIVED	optional	[0 1] 0: retrieve actual proses only (default) 1: retrieve all archived proses too

XML response scheme:

```

<proses>
  <prose id="2445/101" language="de" native="1" state="stable" date="2005-01-01
14:05:34" killed="0">
    <title>Hinterste Mühle</title>
    <body>Die Wassermühle stammt aus dem 13. Jahrhundert.</body>
    <author>Maik Stöckmann</author>
    <user>Stöckmann</user>
  </prose>
  <prose>
  ...
</proses>

```

Remarks:

- attribute "killed" is only included when parameter WITH\_ KILLED is set to "1"
- proses are sorted ascending by date
- archived prose versions are sorted descending by date (if WITH\_ARCHIVED=1)
- if COMPRESSION is set, a leading marker "XML" is attached to response

## 3.2 List

<b>Description</b>	Get a list of proses (used for database replication)
<b>URL</b>	<a href="http://api.kleks-online.de/proses-list">http://api.kleks-online.de/proses-list</a>
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	ascii string

Parameter	Status	Possible values
COMPRESSION	optional	"deflate"
MODIFIED_SINCE	optional	MySQL timestamp (format "yyyy-mm-dd hh:mm:ss")

LAT_MIN, LAT_MAX, LON_MIN, LON_MAX	optional	spatial filter: only list proses belonging to landscape elements that are located in or intersect the given bounding box (WGS84 latitude/longitude)
---	----------	---

Response scheme:

[keyword],[MySQL timestamp of this query],[item count][line feed][id]-[language code],[id]-[language code],...

e.g.:

PROSES,2008-09-08 09:01:30,2  
2445/101-de,2445/250-de

Remarks:

- the list is sorted ascending by modification date of the items
- only the item list (after line feed) is compressed (if COMPRESSION is set)

### 3.3 Put/Delete

<b>Description</b>	Upload new or modified prose or delete a prose
<b>URL</b>	<a href="https://api.kleks-online.de/prose-put">https://api.kleks-online.de/prose-put</a>
<b>Parameters</b>	HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
USER	required	user token
PW	required	user password
XML	required	XML (UTF-8 encoded)

XML parameter scheme for uploading:

```
<prose id="2445/101" language="de" native="1" state="stable" serverdate="[MySQL timestamp of last known server record version]">
  <title>Hinterste M&uuml;hle</title>
  <body>Die Wasserm&uuml;hle stammt aus dem 13. Jahrhundert.</body>
  <author>Maik St&ouml;ckmann</author>
</prose>
```

XML parameter scheme for deleting:

```
< prose id="2445/101" language="de" serverdate="[MySQL timestamp of last known server record version]" killed="1"/>
```

XML response scheme on success:

```
<response>
  <date>[MySQL timestamp]</date>
  <conflict>[MySQL timestamp of overwritten record],[user token]</conflict>
</response>
```

XML response scheme on failure:

```
<response>
  <error>[error message]</error>
</response>
```

Remarks:

- attribute "serverdate" must be empty for a new prose
- tag „conflict“ on response is empty when no conflict was detected

## 4 Media

### 4.1 Download file or thumbnail

<b>Description</b>	Download a medium file
<b>URL</b>	<a href="http://api.kleks-online.de/medium-file">http://api.kleks-online.de/medium-file</a>
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	the requested file on success, an error message in plain text on failure

Parameter	Status	Possible values
ID	required	landscape element id
FILE	required	alias of "IDs" parameter
W	optional	Scaling image down to denoted width
H	optional	Scaling image down to denoted height
MARKKILLED	optional	Mark images that are prebooked for deleting? [0] no (default) [1] yes

## 4.2 Retrieve media records

<b>Description</b>	Retrieve media records
<b>URL</b>	http://api.kleks-online.de/media-get
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
COMPRESSION	optional	“deflate“
IDs	optional	comma separated list of landscape element ids (optionally including file), e.g. “2445/101,2445/250”, e.g. “2445/101pic1.jpg,2445/250pic2.jpg”
ID	optional	alias of parameter “IDs”
WITH_KILLED	optional	[0 1 2] 0: retrieve un-deleted media records (default) 1: retrieve media records that are prebooked for deleting too 2: retrieve deleted media records too
SELECTION	optional	[“” “research” “presentation”] “”: retrieve media records that are public (default) “research”: retrieve media records, that aren’t public, too “presentation”: retrieve only media records that are selected for presentation

XML response scheme:

```
<media>
  <medium id="2445/101" file="pic1.jpg" uploaded="2005-01-01 14:05:34"
  date="2005-01-01 14:05:34" killed="0">
    <width>800</width>
    <height>600</height>
    <language>de</language>
    <sortation>5</sortation>
    <selection>[“”|research|presentation]</selection>
    <exclusive>[“”]1</exclusive>
    <source>Maik Stöckmann</source>
    <creationtime>Juli 1998</creationtime>
    <uploader>Stöckmann</uploader>
    <user>Stöckmann</user>
  </medium>
  <medium
  ...
</media>
```

Remarks:

- attribute "language" can be empty
- attribute "killed" is only included when parameter WITH\_KILLED is set to "1"
- possible values for attribute "killed" are "0" (not deleted), "1" (prebooked for deleting), and "2" (deleted)
- tags "width" and "height" are only included for images
- if only one ID is requested, the list of media is sorted by tag "sortation", otherwise it is sorted ascending by date
- if COMPRESSION is set, a leading marker "XML" is attached to response

### 4.3 Retrieve media descriptions

<b>Description</b>	Retrieve media descriptions
<b>URL</b>	http://api.kleks-online.de/mediadesc-get
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
COMPRESSION	optional	"deflate"
IDs	optional	comma separated list of landscape element ids (optionally including file and/or language code), e.g. "2445/101,2445/250", e.g. "2445/101-de,2445/250-de", e.g. "2445/101pic1.jpg,2445/250pic2.jpg" e.g. "2445/101pic1.jpg-de,2445/250pic2.jpg-de"
ID	optional	alias of parameter "IDs"
WITH_KILLED	optional	[0 1] 0: don't retrieve records that are deleted (default) 1: retrieve all media records

XML response scheme:

```
<mediadesc>
  <mediumdesc id="2445/101" file="pic1.jpg" language="de" native="1" date="2005-01-01 14:05:34" killed="0">
    <title>Ansicht von Süden</title>
    <description>Auf dieser Seite befindet sich der Haupteingang</description>
    <user>Stöckmann</user>
  </mediumdesc>
  <mediumdesc>
    ...
</mediadesc>
```

Remarks:

- attribute "killed" is only included when parameter WITH\_KILLED is set to "1"
- the list of media descriptions is sorted ascending by date
- if COMPRESSION is set, a leading marker "XML" is attached to response

## 4.4 List media

<b>Description</b>	Get a list of media (used for database replication)
<b>URL</b>	http://api.kleks-online.de/media-list
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	ASCII string

Parameter	Status	Possible values
COMPRESSION	optional	"deflate"
MODIFIED_SINCE	optional	MySQL timestamp (format "yyyy-mm-dd hh:mm:ss")
LAT_MIN, LAT_MAX, LON_MIN, LON_MAX	optional	spatial filter: only list media belonging to landscape elements that are located in or intersect the given bounding box (WGS84 latitude/longitude)

Response scheme:

[keyword],[MySQL timestamp of this query],[item count][line feed][id][file],[id][file],...

e.g.:

```
MEDIA,2008-09-08 09:01:30,2
2445/250pic1,2445/250pic2
```

Remarks:

- the list is sorted ascending by modification date of the items
- only the item list (after line feed) is compressed (if COMPRESSION is set)

## 4.5 List media descriptions

<b>Description</b>	Get a list of media descriptions (used for database replication)
<b>URL</b>	http://api.kleks-online.de/mediadesc-list
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	ASCII string

Parameter	Status	Possible values
COMPRESSION	optional	"deflate"
MODIFIED_SINCE	optional	MySQL timestamp (format "yyyy-mm-dd hh:mm:ss")
LAT_MIN, LAT_MAX, LON_MIN,	optional	spatial filter: only list media descriptions belonging to landscape elements that are located in or intersect the given bounding box (WGS84

LON_MAX		latitute/longitude)
---------	--	---------------------

Response scheme:

[keyword],[MySQL timestamp of this query],[item count][line feed][id][file]-  
[language],[id][file]-[language],...

e.g.:

MEDIADESC,2008-09-08 09:01:30,2  
2445/250pic1-de,2445/250pic2-de

Remarks:

- the list is sorted ascending by modification date of the items
- only the item list (after line feed) is compressed (if COMPRESSION is set)

## 4.6 Put/delete a medium

<b>Description</b>	Upload new medium, update an existing medium record, or delete a medium
<b>URL</b>	<a href="https://api.kleks-online.de/medium-put">https://api.kleks-online.de/medium-put</a>
<b>Parameters</b>	HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
USER	required	user token
PW	required	user password
XML	required	XML (UTF-8 encoded)
FDOWNLOAD	optional	insert file from www address
multi part form data file named "FUPLOAD"	optional	attached file

XML parameter scheme for uploading/updating:

```
<medium id="2445/101" file="pic1.jpg" uploaded="[MySQL timestamp of file upload]">
  <language>de</language>
  <selection>["research|presentation"]</selection>
  <exclusive>["1"]</exclusive>
  <source>Maik Stöckmann</source>
  <creationtime>Juli 1998</creationtime>
</medium>
```

XML parameter scheme for deleting:

```
<medium id="2445/101" file="pic1.jpg" uploaddate="[MySQL timestamp of file
upload]" killed="1"/>
```

XML response scheme on success:

```
<response>
  <file>pic1.jpg</file>
  <killed>[1|2]</killed>
  <date>[MySQL timestamp]</date>
  <notice>[advice or warning]</notice>
</response>
```

XML response scheme on failure:

```
<response>
  <error>[error message]</error>
</response>
```

Remarks:

- attributes "file" and "serverdate" must be empty for a new medium
- it's not allowed to overwrite an existing medium with an attached file ("FUPLOAD")
- administrators and the uploader of the medium are allowed to update or delete an existing media record, other users only can prebook a medium for deleting (the server decides automatically what to do when you send killed="1")
- when deleting a medium, all it's media description records are deleted too
- the size of an uploaded image file is limited to 32 MByte
- an image will be automatically sampled down, if it's greater than 1.440.000 pixel<sup>2</sup>
- the size of an uploaded document file is limited to 512 kByte
- the size of an uploaded audio file is limited to 1 MByte
- the size of an uploaded video file is limited to 10 MByte
- tag "file" on response is only included when uploading a new medium
- tag "notice" on response is only included when needed
- tag "date" on response of an update is empty if the medium identified by attribute "uploaddate" has gone
- tag "killed" on response is included only for delete requests, it can be 1 (prebooked for deleting) or 2 (deleted)

## 4.7 Arrange media

<b>Description</b>	Determine the sortation of the media belonging to a landscape element
<b>URL</b>	<a href="https://api.kleks-online.de/media-arrange">https://api.kleks-online.de/media-arrange</a>
<b>Parameters</b>	HTTP-POST
<b>Response</b>	ASCII string

Parameter	Status	Possible values
USER	required	user token
PW	required	user password

ID	required	landscape element id
FILES	required	a comma separated list of file names, e. g.: pic2.jpg,pic1.jpg,pic3.jpg

Response on success:

"OK"

Response on failure:

error message in plain text

## 4.8 Put/delete a medium description

<b>Description</b>	Upload new or modified medium description
<b>URL</b>	<a href="https://api.kleks-online.de/mediumdesc-put">https://api.kleks-online.de/mediumdesc-put</a>
<b>Parameters</b>	HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
USER	required	user token
PW	required	user password
XML	required	XML (UTF-8 encoded)

XML parameter scheme for uploading:

```
<mediumdesc id="2445/101" file="pic1.jpg" language="de" native="1"
serverdate="[MySQL timestamp of last known server record version]">
  <title>Ansicht von Süden</title>
  <description>Auf dieser Seite befindet sich der Haupteingang</description>
</mediumdesc>
```

XML parameter scheme for deleting:

```
<mediumdesc id="2445/101" file="pic1.jpg" language="de" serverdate="[MySQL
timestamp of last known server record version]" killed="1"/>
```

XML response scheme on success:

```
<response>
  <date>[MySQL timestamp]</date>
</response>
```

XML response scheme on failure:

```
<response>
```

```
<error>[error message]</error>
</response>
```

Remarks:

- attribute "serverdate" must be empty for a new medium description
- only administrators and the uploader of the medium are allowed to update or delete an existing media description
- if both tags "title" and "description" are empty then the attribute "killed" is set to 1 automatically

## 5 Combined appendices

<b>Description</b>	Retrieve abstracts, proses and media descriptions at once
<b>URL</b>	http://api.kleks-online.de/appendices
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
COMPRESSION	optional	"deflate"
IDs	optional	landscape element ids (comma separated without spaces, e.g. "2445/101,2445/250")
ID	optional	alias of parameter "IDs"
WITH_ARCHIVED	optional	see retrieving abstracts/proses
WITH_KILLED	optional	see retrieving media records, abstracts/proses
SELECTION	optional	see retrieving media records

XML response scheme:

```
<appendices>
  <abstracts>
    ...
  </abstracts>
  <proses>
    ...
  </proses>
  <media>
    ...
  </media>
  <mediadesc>
    ...
  </mediadesc>
</appendices>
```

## 6 Synopses

<b>Description</b>	Retrieve synopses of all current/stable information about one or more landscape elements
<b>URL</b>	http://api.kleks-online.de/synopses
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
SRS	optional	spatial reference system, default is "epsg:4326"
COMPRESSION	optional	"deflate"
IDs	required	comma separated list of landscape element ids (optionally including id extension "no" separated by minus), e.g. "2445/101,2445/250", e.g. "2445/101-1,2445/250-0"
ID	required	alias of parameter "IDs"
LANGUAGE	optional	language code
CLEARTEXT	optional	[0 1] 0 = default 1: convert type, genesis, and breakup to clear text (LANGUAGE must be set)
SELECTION	optional	see retrieving media records

XML response scheme:

```
<synopses>
  <synopsis id="2445/101">
    <element no="0" date="2005-01-01 14:05:34">
      [according to: see retrieving landscape elements]
    </element>
    <element no="1" date="2005-01-01 10:05:34">
      ...
    <abstract language="de" date="2005-01-01 14:05:34">
      [according to: see retrieving abstracts]
    </abstract>
    <abstract language="pl"...
    <prose language="de" date="2005-01-01 14:05:34">
      [according to: see retrieving proses]
    </prose>
    <prose language="pl"...
    <medium file="pic1.jpg" date="2005-01-01 14:05:34">
      [according to: see retrieving media records]
    <mediumdesc language="de" date="2005-01-01 14:05:34">
      [according to: see retrieving media descriptions]
```

```
    </mediumdesc>
    <mediumdesc language="pl"...
  </medium>
</synopsis>
<synopsis
...
</synopses>
```

Remarks:

- the media within an element are sorted by tag "sortation"

## C Geo-Images

### 1.1 Download file or thumbnail

<b>Description</b>	Download a geo-image file
<b>URL</b>	<a href="http://api.kleks-online.de/geoimage-file">http://api.kleks-online.de/geoimage-file</a>
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	the requested file on success, an error message in plain text on failure

Parameter	Status	Possible values
ID	required	landscape element id
W	optional	Scaling image down to denoted width
H	optional	Scaling image down to denoted height

### 1.2 Retrieve

<b>Description</b>	Retrieve one or more geo-image records
<b>URL</b>	<a href="http://api.kleks-online.de/geoimages-get">http://api.kleks-online.de/geoimages-get</a>
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
COMPRESSION	optional	"deflate"
SRS	optional	spatial reference system, default is "epsg:4326"
X_MIN, X_MAX, Y_MIN, Y_MAX	optional	spatial filter: retrieve only geo-images that are located in the given bounding box, specified by SRS
FOLDER	optional	[E I L W] E: landscape elements I: information boards L: landscapes W: sign-postings
FILENAMEPART	optional	retrieve only geo-images with a filename containing the given string (not case-sensitive)
IDs	optional	comma separated list of ids, e.g. "15587,15588"

ID	optional	alias of parameter "IDs"
----	----------	--------------------------

XML response scheme:

```
<geoimages>
  <geoimage id="15587" uploaded="2005-01-01 14:05:34" date="2005-01-01
14:05:34" >
    <geometry srs="epsg:4326">POINT(13.5544 53.0232)</geometry>
    <folder>[E][L][W]</folder>
    <filename>IMG_2554.jpg</filename>
    <width>2000</width>
    <height>1200</height>
    <priority>[0]1|2|3</priority>
    <compass>[N|NNE|NE|ENE|ESE|SE|SSE|S|SSW|SW|WSW|W|
WNW|NW|NNW|X]</compass>
    <title>Blick ins Malliner Bachtal</title>
    <comment>not for public</comment>
    <copyright>Maik Stöckmann</copyright>
    <creationtime>01.05.1998</creationtime>
    <exclusive>[0]1</exclusive>
    <uploader>Stöckmann</uploader>
    <user>Stöckmann</user>
  </geoimage>
  <geoimage>
  ...
</geoimages>
```

Remarks:

- if COMPRESSION is set, a leading marker "XML" is attached to response

Priority values:

(0) not for public, (1) normal, (2) high, (3) very high

### 1.3 Put/delete

<b>Description</b>	Upload new or modified geo-image
<b>URL</b>	<a href="https://api.kleks-online.de/geoimage-put">https://api.kleks-online.de/geoimage-put</a>
<b>Parameters</b>	HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
USER	required	user token
PW	required	user password
XML	required	XML (UTF-8 encoded)
FUPLOAD	optional	an attached image file named "FUPLOAD"

XML parameter scheme for uploading:

```
<geoimage id="15587">
  <geometry srs="epsg:4326">POINT(13.5544 53.0232)</geometry>
  <folder>[E]|L|W</folder>
  <priority>[0|1|2|3]</priority>
  <compass>[N|NNE|NE|ENE|ESE|SE|SSE|S|SSW|SW|WSW|W|
    WNW|NW|NNW|X]</compass>
  <title>Blick ins Malliner Bachtal</title>
  <comment>not for public</comment>
  <copyright>Maik Stöckmann</copyright>
  <creationtime>01.05.1998</creationtime>
  <exclusive>[0|1]</exclusive>
</geoimage>
```

XML parameter scheme for deleting:

```
<gepimage id="15587" killed="1"/>
```

XML response scheme on success:

```
<response>
  <newid>15587</newid>
  <date>[MySQL timestamp]</date>
</response>
```

XML response scheme on failure:

```
<response>
  <error>[error message]</error>
</response>
```

Remarks:

- point geometries are allowed only
- attribut "id" must be empty for a new geoimage
- tag „newid“ on response is included only if necessary
- folder/priority values: see "Retrieve"
- compass means the viewing direction of the photographer
- only administrators and the uploader of the medium are allowed to update or delete an existing geo-image record

## D Audio guide

### 1.1 Download file

<b>Description</b>	Download an audio file
<b>URL</b>	http://api.kleks-online.de/audio-file
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	the requested file on success, an error message in plain text on failure

Parameter	Status	Possible values
ID	required	landscape element id

### 1.2 Retrieve

<b>Description</b>	Retrieve one or more audio records
<b>URL</b>	http://api.kleks-online.de/audios-get
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
COMPRESSION	optional	"deflate"
SRS	optional	spatial reference system, default is "epsg:4326"
X_MIN, X_MAX, Y_MIN, Y_MAX	optional	spatial filter: retrieve only audios that are located in the given bounding box, specified by SRS
LANGUAGE	optional	only retrieve audios of given language code, e. g. "de"
IDs	optional	comma separated list of ids, e.g. "155,159"
ID	optional	alias of parameter "IDs"

XML response scheme:

```
<audios>
  <audio id="155" language="de" uploaded="2005-01-01 14:05:34" date="2005-01-01
14:05:34" >
    <geometry srs="epsg:4326">POINT(13.5544 53.0232)</geometry>
```

```

<filename>sage.mp3</filename>
<priority>[0|1|2|3]</priority>
<type>[0|1]</type>
<title>Der meineidige Johanniter</title>
<narrator>Barbara Schmidt</narrator>
<copyright>Studio Volker Schmidt</copyright>
<creationtime>01.05.1998</creationtime>
<wording>...</wording>
<uploader>Stöckmann</uploader>
<user>Stöckmann</user>
</audio>
<audio
...
</audios>

```

#### Remarks:

- if COMPRESSION is set, a leading marker "XML" is attached to response

#### Possible type values:

(0) factual information, (1) tale

#### Priority values:

(0) not for public, (1) normal, (2) high, (3) very high

## 1.3 Put/delete

<b>Description</b>	Upload new or modified audio record
<b>URL</b>	<a href="https://api.kleks-online.de/audio-put">https://api.kleks-online.de/audio-put</a>
<b>Parameters</b>	HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
USER	required	user token
PW	required	user password
XML	required	XML (UTF-8 encoded)
FUPLOAD	optional	an attached audio file named "FUPLOAD"

XML parameter scheme for uploading:

```

<audio id="155" language="de">
  <geometry srs="epsg:4326">POINT(13.5544 53.0232)</geometry>
  <priority>[0|1|2|3]</priority>
  <type>[0|1]</type>
  <title>Der meineidige Johanniter</title>
  <narrator>Barbara Schmidt</narrator>
  <copyright>Studio Volker Schmidt</copyright>

```

```
<creationtime>01.05.1998</creationtime>
<wording>...</wording>
</audio>
```

XML parameter scheme for deleting:

```
<audio id="155" killed="1"/>
```

XML response scheme on success:

```
<response>
  <newid>155</newid>
  <date>[MySQL timestamp]</date>
</response>
```

XML response scheme on failure:

```
<response>
  <error>[error message]</error>
</response>
```

Remarks:

- mp3 files are allowed only
- point geometries are allowed only
- attribut "id" must be empty for a new geoinage
- tag „newid“ on response is included only if necessary
- type/priority values: see "Retrieve"
- only administrators and the uploader of the medium are allowed to update or delete an existing audio record

## E User accounts

### 1.1 Retrieve

<b>Description</b>	Retrieve information about user account
<b>URL</b>	<a href="https://api.kleks-online.de/user-get">https://api.kleks-online.de/user-get</a>
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
USER or EMAIL	required	user token and/or email address, UTF-8 encoded
PW	required	user password, UTF-8 encoded

XML response scheme on success:

```
<response>
  <user>[user token]</user>
  <admin>[0|1]</admin>
  <name>[full user name]</name>
  <email>[user's email address]</email>
  <institution>[name of institution, can be empty]</institution>
  <language>[user's native language code]</language>
</response>
```

XML response scheme on failure:

```
<response>
  <error>[error message]</error>
</response>
```

### 1.2 Modify

<b>Description</b>	Modify existing user account
<b>URL</b>	<a href="https://api.kleks-online.de/user-modify">https://api.kleks-online.de/user-modify</a>
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
USER or EMAIL	required	user token and/or email address, UTF-8 encoded
PW	required	user password, UTF-8 encoded
XML	required	XML (UTF-8 encoded)

XML parameter scheme for uploading:

```
<user>
  <name>[full user name]</name>
  <institution>[name of institution – can be empty]</institution>
  <language>[user's native language code]</language>
  <pwnew>[new password – optional]</pwnew>
  <emailnew>[new email address – optional]</emailnew>
</user>
```

XML response scheme:

```
<response>
  <success>[0|1]</success>
  <error>[error message]</error>
</response>
```

Remarks:

- the error tag is only included if an error occurred (when success=0)

### 1.3 Register

<b>Description</b>	Register new user
<b>URL</b>	<a href="https://api.kleks-online.de/user-register">https://api.kleks-online.de/user-register</a>
<b>Parameters</b>	HTTP-GET (query string) or HTTP-POST
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
USER	required	user token, UTF-8 encoded
EMAIL	required	email address, UTF-8 encoded
XML	required	XML (UTF-8 encoded)

XML parameter scheme for uploading:

```
<user>
  <name>[full user name]</name>
  <institution>[name of institution – can be empty]</institution>
  <language>[user's native language code]</language>
</user>
```

XML response scheme:

```
<response>  
  <success>[0|1]</success>  
  <error>[error message]</error>  
</response>
```

Remarks:

- the error tag is only included if an error occurred (when success=0)

## F Web Map Service (WMS)

### 1.1 GetCapabilities request

<b>Description</b>	Retrieve information about capabilities of WMS
<b>URL</b>	<a href="http://api.kleks-online.de/wms">http://api.kleks-online.de/wms</a>
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
SERVICE	required	must be "WMS"
REQUEST	required	must be "GetCapabilities"

XML response scheme on success:  
see [www.openegeospatial.org/standards/wms](http://www.openegeospatial.org/standards/wms)

### 1.2 GetMap request

<b>Description</b>	Retrieve image from WMS
<b>URL</b>	<a href="http://api.kleks-online.de/wms">http://api.kleks-online.de/wms</a>
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	image, or error message

Parameter	Status	Possible values
SERVICE	required	"WMS"
REQUEST	required	"GetMap"
VERSION	required	"1.1.1", "1.3.0"
LAYERS	required	"Elements", "Audios", "Geoimages", or comma separated combination
FILTER	optional	like SQL "WHERE" clause (please contact <a href="mailto:info@kleks-online.de">info@kleks-online.de</a> )
THINOUT	optional	[""] research touristic] unset: draw all objects (default) "research": draw a selection of objects depending on scale and priority "tourism": draw a selection of objects

		depending on scale and touristic relevance
STYLES	optional	not yet supported
SRS	required	epsg:[code]
BBOX	required	"[minx],[miny],[maxx],[maxy]"
WIDTH	required	image width in pixels
HEIGHT	required	image height in pixels
FORMAT	optional	„image/png“ (RGBA mode – default), “text/xml” (xml output – In extension to OGC WMS standard)

### 1.3 GetFeatureInfo request

<b>Description</b>	Retrieve information about mapped elements
<b>URL</b>	<a href="http://api.kleks-online.de/wms">http://api.kleks-online.de/wms</a>
<b>Parameters</b>	HTTP-GET (query string)
<b>Response</b>	XML (UTF-8 encoded)

Parameter	Status	Possible values
SERVICE	required	“WMS”
REQUEST	required	“GetFeatureInfo“
VERSION	required	“1.1.1”, “1.3.0”
QUERY_LAYERS	required	“Elements”, “Audios”, “Geolimages”, or comma separated combination
FILTER	optional	see GetMap request
THINOUT	optional	see GetMap request
LANGUAGE	optional	language code, e. g. “de”
CLEARTEXT	optional	[0 1] 0 = default 1: convert type, genesis, and breakup to clear text
SELECTION	optional	see retrieving media records
SRS	required	epsg:[code]
BBOX	required	"[minx],[miny],[maxx],[maxy]"
WIDTH	required	image width in pixels
HEIGHT	required	image height in pixels

INFO_FORMAT	required	"text/xml"
FEATURE_COUNT	optional	max. number of retrieved records
I (or X)	Required	X coordinate of request in pixel
J (or Y)	required	Y coordinate of request in pixel

XML response scheme:

```
<response>
  <synopsis id="2445/101">
    [see retrieving synopses]
  </synopsis>
  ...
</response>
```

Remarks:

- results are sorted by area size first, then by distance to query point